

Study Guide

For use with pages 340–344

GOAL Use decimals to solve percent problems.**EXAMPLE 1** Writing Decimals as Percents

Write 0.35, 0.035, 5.7, and 0.001 as percents.

$$\begin{array}{llll} \text{a. } 0.35 = \underbrace{0.35} & \text{b. } 0.035 = \underbrace{0.035} & \text{c. } 5.7 = \underbrace{5.70} & \text{d. } 0.001 = \underbrace{0.001} \\ = 35\% & = 3.5\% & = 570\% & = 0.1\% \end{array}$$

EXAMPLE 2 Writing Percents as Decimals

Write 53%, 560%, and 1.2% as decimals.

$$\begin{array}{lll} \text{a. } 53\% = \underbrace{53\%} & \text{b. } 560\% = \underbrace{560\%} & \text{c. } 1.2\% = \underbrace{01.2\%} \\ = 0.53 & = 5.6 & = 0.012 \end{array}$$

Exercises for Examples 1 and 2

Write the decimal as a percent or the percent as a decimal.

- | | | | |
|---------|-------|----------|-----------|
| 1. 0.13 | 2. 15 | 3. 1.255 | 4. 0.0023 |
| 5. 61% | 6. 4% | 7. 0.05% | 8. 212% |

EXAMPLE 3 Writing Fractions as PercentsWrite $\frac{9}{32}$, $\frac{2}{9}$, and $\frac{21}{16}$ as percents.

$$\begin{array}{ll} \text{a. } \frac{9}{32} = 0.28125 & \text{Write fraction as a decimal.} \\ & = 28.125\% \quad \text{Write decimal as a percent.} \\ \text{b. } \frac{2}{9} = 0.222\ldots & \text{Write fraction as a decimal.} \\ & = 22.\overline{2}\% \quad \text{Write decimal as a percent.} \\ \text{c. } \frac{21}{16} = 1.3125 & \text{Write fraction as a decimal.} \\ & = 131.25\% \quad \text{Write decimal as a percent.} \end{array}$$

Exercises for Example 3

Write the fraction as a percent.

- | | | | |
|------------------|-------------------|--------------------|--------------------|
| 9. $\frac{9}{4}$ | 10. $\frac{3}{2}$ | 11. $\frac{7}{11}$ | 12. $\frac{3}{40}$ |
|------------------|-------------------|--------------------|--------------------|

Study Guide

For use with pages 340–344

EXAMPLE 4 Finding a Percent of a Number

The average adult has 10 to 12 pints of blood. Human blood is 83% water. How many pints of water are in 11 pints of human blood?

Solution

$$\begin{aligned} 83\% \text{ of } 11 &= 0.83 \cdot 11 && \text{Write percent as a decimal.} \\ &= 9.13 && \text{Multiply.} \end{aligned}$$

Answer: There are 9.13 pints of water in 11 pints of human blood.

Exercises for Example 4

Find the percent of the number.

13. 41% of 12

14. 207% of 300

15. 0.035% of 100